Bryce A. Maxell – Curriculum Vitae

Montana Natural Program, 1515 East Sixth Avenue Helena, Montana 59620-1800
Phone: (406) 444-3655 Fax: (406) 444-0581 Email:bmaxell@mt.gov

MAIN FIELDS OF INTEREST

My main interests are natural history, conservation biology, biogeography, and the effects of exotic species. I am interested in conducting broad based, statistically sound, baseline surveys for, and applying advanced techniques in conservation biology to, a wide variety of non-game taxa. Although I am interested in working with all taxa, I am especially interested in working with amphibians, reptiles, mollusks, bats, and birds. I am also interested in raising awareness about the natural history and status of these species so that issues associated with their management are properly addressed in management plans and so that they can be properly appreciated by current and future generations.

PERSONAL INFORMATION

- Born in Laramie, Wyoming, March 1, 1971.
- Grew up in a small town, Oakley (population 500), in the Uintah Mountains of northeast Utah. Spent winters dogsledding and summers swimming, hiking, and camping.
- Married Sarah on August 16, 1996 – no children yet, but we intend to have at least 1 in the near future.
- Swam competitively in high school and as an undergraduate in college.
- Enjoy canoeing, hiking, camping, swimming, skiing, running, biking, and, most of all, natural history.
- I am a very hard working person.

EDUCATION

Doctor of Philosophy in Fish and Wildlife Biology – Still writing.
University of Montana, Missoula, Montana. Studying the demography and landscape ecology of native Columbia spotted frogs and other amphibians in relation to the impacts of exotic salmonid fishes. Emphasis in the application of conservation biology techniques to the conservation of amphibians and reptiles. Cumulative GPA 4.0.

Environmental Studies Program - September 1996 - Fall 1998 then transferred to Ph.D. program
University of Montana, Missoula, Montana. Emphasis in conservation biology with application of geographic information systems to conservation of amphibians and reptiles. Cumulative GPA 4.0.

Post undergraduate Thomas J. Watson Fellowship - July 1994 - July 1995
Awarded one of 50 year long independent fellowships offered annually in the United States by the Thomas J. Watson Foundation. Studied the natural history and management of the terrestrial and marine flora and fauna in Australia and New Zealand.

Bachelor of Science in Biology and Bachelor of Arts in Economics - May 1994
University of Puget Sound, Tacoma, Washington. For B.S. in Biology emphasis was in Marine Biology with completion of subtidal field research on the demographics of several species of brown seaweed in the Puget Sound and molecular research on gene flow in populations of the kelp *Nereocystis luetkeana* in the Puget Sound. For B.A. in Economics emphasis was in Environmental Economics with completion of a cost benefit analysis of sewage treatment for the city of Victoria, British Columbia. B.S. in Biology Major GPA 3.64. B.A. in Economics Major GPA 3.67. Cumulative GPA 3.53. Deans List Fall 1990, Fall 1993.

Graduate of South Summit High School - May 1989
Kamas, Utah. Valedictorian, Class of 1989. Cumulative GPA 3.98. Member of the Academic Honor Society. Swim Team Captain. Division 1A, 2A, and 3A State Swimming Champion in the 200 yard Individual Medley, 1989.

RESEARCH AND WORK EXPERIENCE

Senior Zoologist at the Montana Natural Heritage Program - January 2005 - Present
Job duties include: (1) designing, conducting, and securing support for inventory and applied research on species and habitats of conservation concern; (2) collecting and managing data for the statewide database on Montana species of concern; (3) coordinating the process of statewide species status ranking; (4) building collaborations with biologists and managers in state and federal agencies, tribal governments, and the private consultants in order to enhance understanding and management of species of concern; and (5) providing taxonomic expertise to resource managers and decision makers.

Research Assistant at the University of Montana - Fall 2000 - Fall 2005.
RA for Region 1 U.S. Forest Service, Montana Department of Environmental Quality, U.S. Environmental Protection Agency, Montana Department of Fish, Wildlife, and Parks, and Plum Creek Timber Company for conducting a literature review evaluating the management of Montana's amphibians and coordinating regional inventories for amphibians and aquatic reptiles on public and private lands in western Montana.

Teaching Assistant at the University of Montana - Spring 1997 - Spring 2000.
TA for Dr. Scott Mills' Wildlife Biology 470, Conservation of Wildlife Populations, and Wildlife Biology 570, Advanced Population Ecology. TA for Dr. Les Marcum's Wildlife Biology 270, Wildlife Management Issues, and Wildlife Biology 370, Wildlife Habitat Conservation and Management. TA for Dr. James Sears' and Dr. Kevin Murray's Science 226, General Earth and Life Science. TA for Dr. David Friend's and Dr. David Freeman's Science 225, General Physical and Chemical Science.

Field Zoologist for the Montana Natural Heritage Program - Summer 1996 - Summer 1998.
Conducted banding and sight surveys for harlequin duck mating pairs and broods throughout western Montana. Conducted herpetofauna surveys and incidental avifaunal surveys throughout Montana.

Intern at the University of Montana's Phil Wright Memorial Zoological Museum - March-June 1996.
Coordinated and led museum tours for university classes and public school groups. Designed and constructed public education displays for the University of Montana's Herbarium and Phil Wright Memorial Zoological Museum and the Montana Natural History Center. Led natural history walks for public school groups. Publicized University of Montana Herbarium, Phil Wright Memorial Zoological Museum and Montana Natural History Center events.

Substitute High School Teacher - September 1995 - February 1996.
Long and short term substitutions for environmental science, AP biology, AP chemistry, physics, and mathematics classes in the South Summit and Park City School Districts in Summit County, Utah.

Thomas J. Watson Fellow - July 1994 - July 1995.
During a year long independent fellowship studying the natural history and management of the flora and fauna of Australia and New Zealand, I (1) assisted University of Auckland researchers investigating the effects of "no take" marine reserves on local non-reserve floral and faunal populations across New Zealand, (2) assisted Conservation Commission of the Northern Territory (CCNT) ecologists with a recovery program for a wild population of one of the world's most endangered marsupial species, the rufous hare wallaby (*Lagorchestes hirsutus*), in the Tanami Desert of Australia, (3) assisted Australian Commonwealth Scientific and Industrial Research Organization (CSIRO) ecologists with monitoring grazing and fire trials on a 1,000-kilometer transect in the Northern Territory, Australia, (4) assisted Australian Institute of Marine Science and James Cook University researchers on the Great Barrier Reef in Queensland and on Ningaloo Reef in Western Australia with fish and coral monitoring programs and with research on coral fertilization and larval survival rates under a variety of pollution regimes, (5) assisted CCNT ecologists investigating feral cat prey bases and home ranges and feral camel home ranges near Alice Springs, (6) assisted CSIRO ecologists investigating large kangaroo species behavior around artificial watering points in western New South Wales, Australia, and (7) assisted CSIRO ecologists with

biodiversity studies of insects, small mammals, and herpetofauna across grazing gradients on sheep stations in South Australia.

Research Biologist\Lab Manager - January - June 1994

Sampled and DNA fingerprinted populations of *Nereocystis luetkeana* to assess gene flow in populations of this annual kelp species in the Puget Sound of Washington State. Responsible for maintenance of lab equipment, and training and assisting new lab personnel in molecular and other lab techniques.

OFFICES HELD

- Inland Vice President for the Society for Northwestern Vertebrate Biology, February 2005-Present.

PROFESSIONAL MEMBERSHIPS

- Society for Conservation Biology
- Society for the Study of Amphibians and Reptiles
- Society for Northwestern Vertebrate Biology
- MT Chapter of the American Fisheries Society
- MT Chapter of the Wildlife Society

BOOKS

Werner, J.K., B.A. Maxell, D. Flath, and D.P. Hendricks. 2004. Amphibians and reptiles of Montana. Missoula, MT: Mountain Press Publishing Company. 262p.

Maxell, B.A., J.K. Werner, P. Hendricks, and D. Flath. 2003. Herpetology in Montana: a history, status summary, checklists, dichotomous keys, accounts for native, potentially native, and exotic species, and indexed bibliography. Olympia, WA: Society for Northwestern Vertebrate Biology. Northwest Fauna 5: 1-138.

PEER REVIEWED PUBLICATIONS

Funk, W.C., M.S. Blouin, P.S. Corn, B.A. Maxell, D.S. Pilliod, S. Amish, and F. Allendorf. 2005. Population structure of Columbia spotted frogs (*Rana luteiventris*) is strongly affected by the landscape. Molecular Ecology 14: 483-496.

Maxell, B.A. 2002. Geographic Distribution. *Plethodon idahoensis*. Herpetological Review 33(2): 144.

Maxell, B.A., K.J. Nelson, and S. Browder. 2002. Record clutch size and observations on breeding and development of the western toad (*Bufo boreas*) in Montana. Northwestern Naturalist 83(1): 27-30.

Biek, R., W.C. Funk, B.A. Maxell, and L.S. Mills. 2002. What is missing in amphibian decline research: insights from ecological sensitivity analysis. Conservation Biology 16(3): 728-734.

Maxell, B.A. 1999. A power analysis on the monitoring of changes in bull trout stocks using redd counts. North American Journal of Fisheries Management 19: 860-866.

Hart, M.M., W.A. Williams, P.C. Thornton, K.P. McLaughlin, C.M. Tobalske, B.A. Maxell, D.P. Hendricks, C.R. Peterson, and R.L. Redmond. 1998. Montana atlas of terrestrial vertebrates. Missoula, MT: Montana Cooperative Wildlife Research Unit, University of Montana. vii + 1302 p.

Maxell, B.A. 1998. Remarks on the construction of models for amphibians and reptiles. Pages 3.1.1–3.1.3. *In* R.L. Redmond, M.M. Hart, J.C. Winne, W.A. Williams, P.C. Thornton, Z. Ma, C.M. Tobalske, M.M. Thornton, K.P. McLaughlin, T.P. Tady, F.B. Fisher, S.W. Running. 1998. The Montana gap analysis project: final report. Missoula, MT: Montana Cooperative Wildlife Research Unit, The University of Montana. xiii + 136 p. + appendices.

Maxell, B.A., and K.A. Miller. 1996. Demographic studies of the annual kelps *Nereocystis luetkeana* and *Costaria costata* (Laminariales, Phaeophyta) in Puget Sound, Washington. Botanica Marina 39: 479-489.

PROFESSIONAL REPORTS AND NON-PEER REVIEWED PUBLICATIONS

Maxell, B.A., D.R. Blanc, P. Hendricks, M.T. Gates, A.J. Brown, and S. Lenard. 2007. Status and Conservation of Montana's Amphibians and Reptiles: summaries of distribution and habitat use, review of risk factors, species accounts, bibliographies for individual species, research and management suggestions, and a summary of lentic breeding amphibian surveys. Report to Montana Department of Fish, Wildlife, and Parks, Region 1 Office of the U.S. Forest Service, Montana Department of Environmental Quality, and USGS Northern Rocky Mountain Science Center. Montana Natural Heritage Program, Helena, MT and Montana Cooperative Wildlife Research Unit and Wildlife Biology Program, University of Montana, Missoula, MT. 554 p. + Appendices.

Hendricks, P., B.A. Maxell and S. Lenard. 2006. Land Mollusk Surveys on USFS Northern Region Lands. A report to the USDA Forest Service, Northern Region. Montana Natural Heritage Program, Helena, Montana. 11 p. + appendices.

Hendricks, P., B.A. Maxell, S. Lenard, C. Currier, and J. Johnson. 2006. Riparian bat surveys in eastern Montana. Report to the USDI Bureau of Land Management, Montana State Office. Helena, MT: Montana Natural Heritage Program. 13 p. + appendices.

Maxell, B.A. 2006. Evaluation of Montana's lentic breeding amphibian survey methodology and variables correlated with species occupancy. Report to Montana Department of Environmental Quality. Montana Natural Heritage Program, Helena, MT and Montana Cooperative Wildlife Research Unit and Wildlife Biology Program, University of Montana, Missoula, MT. 49 p.

Hendricks, P. and B.A. Maxell. 2005. Bat surveys on USFS Northern Region Lands in Montana: 2005. Report to the USDA Forest Service, Northern Region. Montana Natural Heritage Program, Helena, MT. 12 p. + appendices.

Maxell, B.A. 2005. Amphibian and aquatic reptile inventories conducted on and around lands administered by the Missoula Field Office of the Bureau of Land Management. Report to Missoula Field Office of the Bureau of Land Management. Montana Natural Heritage Program, Helena, MT and Montana Cooperative Wildlife Research Unit and Wildlife Biology Program, University of Montana, Missoula, MT. 53 p.

Maxell, B.A. 2005. A review of monitoring methods and a multi-tiered scheme for assessing and monitoring the status of amphibians in Montana. Report to Montana Department of Environmental Quality, Region 1 Office of the U.S. Forest Service, Montana Department of Fish, Wildlife, and Parks, and Montana State Office of the Bureau of Land Management. Montana Natural Heritage Program, Helena, MT and Montana Cooperative Wildlife Research Unit and Wildlife Biology Program, University of Montana, Missoula, MT. 29 p. + Appendices.

Lenard, S., P. Hendricks, C.L. Currier, and B.A. Maxell. 2005. Pygmy rabbit distribution in Beaverhead and Madison Counties. A report to the Bureau of Land Management, Dillon Field Office. Montana Natural Heritage Program, Helena, MT. 21 p. + appendices.

Maxell, B.A. 2004. Amphibian and aquatic reptile inventories conducted on and around the Thompson River 2003-2004. Report to Region 1 Office of the U.S. Forest Service and Plum Creek Timber Company. Montana Cooperative Wildlife Research Unit and Wildlife Biology Program, University of Montana, Missoula, MT. 83 pp.

Maxell, B.A. 2004. Preliminary report on amphibian and aquatic reptile inventories conducted on and around the Ashland District of the Custer National Forest in 2002 and 2004. Report to Ashland District of Custer Forest, Region 1 Office of the U.S. Forest Service, and Montana Department of Fish, Wildlife, and Parks. Montana Cooperative Wildlife Research Unit and Wildlife Biology Program, University of Montana, Missoula, MT. 93 pp.

Maxell, B.A. 2004. Amphibian and aquatic reptile inventories conducted on and around the Bitterroot National Forest 2000-2003. Report to Region 1 Office of the U.S. Forest Service, Bitterroot National

Forest, Montana Department of Fish, Wildlife, and Parks, and Biological Resources Division of the U.S. Geological Survey. Montana Cooperative Wildlife Research Unit and Wildlife Biology Program, University of Montana, Missoula, MT. 128 pp.

Maxell, B.A. 2004. Report on amphibian and aquatic reptile inventories conducted on and around the Beaverhead-Deerlodge National Forest 2001-2003. Report to Region 1 Office of the U.S. Forest Service, Beaverhead-Deerlodge National Forest, Montana Department of Fish, Wildlife, and Parks, Montana State Office of the Bureau of Land Management, and Montana Department of Environmental Quality. Montana Cooperative Wildlife Research Unit and Wildlife Biology Program, University of Montana, Missoula, MT. 260 pp.

Maxell, B.A. 2004. Preliminary report on amphibian and aquatic reptile inventories conducted in the West Boulder River area during summer 2003. Report to Region 1 Office of the U.S. Forest Service, and the Montana Department of Fish, Wildlife, and Parks. Montana Cooperative Wildlife Research Unit and Wildlife Biology Program, University of Montana, Missoula, MT. 27 pp.

Maxell, B.A. 2002. Amphibian and aquatic reptile inventories in watersheds in the South and Middle Forks of the Flathead River drainage that contain lakes being considered for application of piscicides and subsequent stocking of west slope cutthroat trout. Report to the Region 1 Office of the U.S. Forest Service and the Montana Department of Fish, Wildlife, and Parks. Missoula, MT: Montana Cooperative Wildlife Research Unit and Wildlife Biology Program, University of Montana. 62 pp.

Maxell, B.A. and A.C. Wyrick. 2001. Report to United States Fish and Wildlife Service on the behavioral response of Columbia spotted frog (*Rana luteiventris*) and other native amphibian larvae to chemical cues from bull trout (*Salvelinus confluentus*). 7 pp.

Maxell, B.A. 2000. Management of Montana's amphibians: a review of factors that may present a risk to population viability and accounts on the identification, distribution, taxonomy, habitat use, natural history, and the status and conservation of individual species. Report to USFS Region 1, Order Number 43-0343-0-0224. Missoula, MT: Wildlife Biology Program, University of Montana. 161 pp.

Maxell, B.A., and D.G. Hokit. 1999. Amphibians and reptiles. Pages 2.1– 2.30 *In* G. Joslin and H. Youmans, committee chairs. Effects of recreation on Rocky Mountain wildlife: a compendium of the current state of understanding in Montana. Committee on Effects of Recreation on Wildlife, Montana Chapter of the Wildlife Society.

Maxell, B.A., P.S. Corn, P. Hendricks, T. Koch, C. Peterson, and K. Werner. 1998. Brief overview of boreal toad status in USFS Region 1. Unpublished report to USFS Region 1. 8 pp.

Maxell, B.A. 1997. Bull trout redd counts in the Rock Creek watershed. Unpublished report to the Montana Department of Fish Wildlife and Parks, and Lolo and Deerlodge National Forests 23 pp.

Maxell, B.A. 1996. Bull trout (*Salvelinus confluentus)* in the Rock Creek watershed: a cursory population analysis. Unpublished report to the Montana Department of Fish Wildlife and Parks, the Lolo and Deerlodge National Forests and the U.S. Fish and Wildlife Service. 54 pp.

Maxell, B.A. 1995. Natural history and management of flora and fauna in Australia and New Zealand. Final report and financial accounting to the Thomas J. Watson Foundation. 46 pp.

Maxell, B.A. 1994. A demographic study of seaweeds at Titlow Beach, Tacoma, Washington. Undergraduate Thesis. University of Puget Sound, Tacoma, Washington. 129 pp.

WORKS IN PROGRESS

Maxell, B.A., D.E. Green, D.G. Hokit, P.S. Corn, and B. Hossack. (In Prep). Detection of *Batrachochytrium dendrobatidis*, the chytrid fungus associated with global amphibian declines, in Montana amphibians. (to be submitted to Herpetological Review in Summer 2004).

Maxell, B.A., D.G. Hokit, and P.S. Corn. (In Prep). A watershed based approach for determining the status and conservation needs of lentic breeding amphibians in western Montana. (to be submitted to Conservation Biology in Fall 2004).

Thompson, A.O., B.A. Maxell, and L.M. Wilson. (In Prep). Population and diet characteristics of terrestrial (*Thamnophis elegans*) and common (*Thamnophis sirtalis*) gartersnakes in two high elevation watersheds in western Montana. (to be submitted to Northwestern Naturalist in Fall 2004).

Wilson, L.M., B.A. Maxell, A.O. Thompson, and C.M. Kim. (In Prep). Breeding ecology of the Columbia Spotted Frog (*Rana luteiventris*) in western Montana. (to be submitted to Journal of Herpetology in Fall 2004).

Pilliod, D., B. Hossack, Bahls, P., P.S. Corn, B.A. Maxell, J. Munger, and P. Murphy. (In Prep). A meta-analysis of fish impacts on long-toed salamanders (*Ambystoma macrodactylum*) and Columbia spotted frogs (*Rana luteiventris*) in the northern Rocky Mountains. (to be submitted to the North American Journal of Fisheries Management in Fall 2004).

Maxell, B.A. and D.E. Green. (In Prep). Mass mortalities in high elevation breeding aggregations of the Columbia spotted frog (*Rana luteiventris*). (to be submitted to Herpetological Review in Winter 2004).

Maxell, B.A. and W.C. Funk. (In Prep). Spatial and temporal variation of clutch size and embryo survival in the Columbia spotted frog (*Rana luteiventris*) across latitudinal and elevational gradients in western Montana. (to be submitted to Journal of Herpetology in Winter 2004).

REVIEWS

- Reviewer of manuscripts in Northwestern Naturalist
- Reviewer of manuscripts in Herpetological Review
- Reviewer of manuscripts in Intermountain Journal of Science

WORKSHOPS

Coordinator and Instructor for a 3-day workshop on Identification and Management of Amphibians and Aquatic Reptiles in Montana and Idaho. Attended by 19 Region 1 U.S. Forest Service, Montana Fish, Wildlife, and Parks, and Tribal biologists. Funded by the Region 1 Office of the U.S. Forest Service. Three Rivers Ranger District of Kootenai National Forest, Troy, Montana. May 3-5, 2006.

Coordinator and Instructor for a half-day workshop on Identification and Management of Amphibians and Aquatic Reptiles in eastern Montana. Attended by 16 personnel from the Miles City BLM Office and Montana Department of Fish, Wildlife, and Parks Biologists. Funded by the Miles City BLM Office. Miles City, Montana. April 26, 2006.

Coordinator and Instructor for a 3-day workshop on Identification and Management of Amphibians and Aquatic Reptiles in Montana and Idaho. Attended by 25 Region 1 U.S. Forest Service, Montana Fish, Wildlife, and Parks, Bureau of Land Management, and Tribal biologists. Funded by the Region 1 Office of the U.S. Forest Service. Ashland District of Custer National Forest, Ashland, Montana. May 18-20, 2005.

Coordinator and Instructor for a half-day workshop on Identification and Management of Amphibians and Aquatic Reptiles on the Beaverhead-Deerlodge National Forest. Attended by 30 seasonal and permanent fisheries workers. Funded by the Region 1 Office of the U.S. Forest Service. Dillon Ranger District, Dillon, Montana. June 16, 2004.

Coordinator and Instructor for a 3-day workshop on Identification and Management of Amphibians and Aquatic Reptiles in Montana and northern Idaho. Attended by 20 Region 1 U.S. Forest Service and Montana Fish, Wildlife, and Parks personnel. Funded by the Region 1 Office of the U.S. Forest Service. Darby Ranger District, Darby, Montana. June 2-4, 2004.

Coordinator and Instructor for a 1-day workshop on Management and Identification of Montana's Amphibians and Reptiles. Attended by 80 people from a variety of state and federal agencies, as well as tribes and private consultants. Montana Chapter of the Wildlife Society Meetings. Bozeman, Montana. February 23, 2004.

Coordinator and Instructor for a 3-day workshop on Identification of, and Conducting Inventories for, Montana's Amphibians and Aquatic Reptiles. Attended by 30 U.S. Forest Service and U.S. Army Corps of Engineer personnel. Funded by the Region 1 Office of the U.S. Forest Service. Three Rivers Ranger District, Troy, Montana. May 28-30, 2003.

SIGNIFICANT PRESENTATIONS

Lentic Breeding Amphibian Surveys on the Gallatin National Forest. Invited presentation to the Gallatin National Forest Leadership Team. Bozeman, Montana. April 27, 2006.

Bat Use of Highway Bridges in South-Central Montana and Rabies Risks, Prevention, and Control. Invited presentation to Montana Department of Transportation Conference. Billings, Montana. March 2, 2006.

Statewide Lentic Breeding Amphibian Survey Update. Invited presentation to the Region 1 U.S. Forest Service Regional Inventory and Monitoring Board. Missoula, Montana. December 7, 2005.

Terrestrial Mollusk Surveys on Region 1 USFS Lands. Invited presentation to the Region 1 U.S. Forest Service Regional Inventory and Monitoring Board. Missoula, Montana. December 7, 2005. Presented by Paul Hendricks.

A Watershed Based Approach to Assessing Amphibian Status. Invited presentation to the Montana Department of Environmental Quality and the U.S. Environmental Protection Agency. Missoula, Montana. October 6-7, 2004.

Using Amphibians in Monitoring and Assessment of Wetlands. Invited presentation to the U.S. Environmental Protection Agency Western Bioassessment Workgroup. Rapid City, South Dakota. February 24-26, 2004.

Detection of *Batrachochytrium dendrobatidis*, the Chytrid Fungus Associated with Global Amphibian Declines, in Montana Amphibians. Montana Chapter of the Wildlife Society Meetings. Bozeman, Montana. February 23-27, 2004.

Detection of *Batrachochytrium dendrobatidis*, the Chytrid Fungus Associated with Global Amphibian Declines, in Montana Amphibians. Montana Chapter of the American Fisheries Society Meetings. Whitefish, Montana. February 4-6, 2004.

A Statewide Wetland Monitoring and Assessment Program for Amphibians and Aquatic Reptiles. Invited presentation to the Montana Department of Environmental Quality and the U.S. Environmental Protection Agency. University of Montana, Missoula, Montana. September 24, 2003.

Amphibian and Reptile Declines from North to South America. Invited presentation in a series of public presentations on Conservation at the Crossroads. Roxy Theatre, Missoula, Montana. September 19, 2003. Co-presented with Steve Corn, W. Chris Funk, and Ryan Killackey.

Herpetology in Montana: Past, Present, and Future. Montana Chapter of the Wildlife Society Meetings. Lewistown, Montana. February 24-28, 2003. Abstract published in the Intermountain Journal of Sciences. Co-authored with J. Kirwin Werner, Paul Hendricks, and Dennis Flath.

Developing a Comprehensive Wetland Assessment and Monitoring Program for Montana's Amphibians and Aquatic Reptiles. Invited presentation to Montana Wetlands Council. Montana Department of Environmental Quality, Helena, Montana. September 5, 2002.

Lentic Breeding Amphibians and Aquatic Reptile Inventories on Federal and State Lands in Western Montana. Invited presentation to Region 1 USFS Fish and Wildlife Biologists at the Watershed, Fisheries, Wildlife, and Rare Plants Meeting. Missoula, Montana. February 5-7, 2002.

Columbia Spotted Frog - Northern Population Update. Columbia Spotted Frog Workshop. Reno, Nevada. January 29-30, 2002. Co-authored with David S. Pilliod and Janice Engle. Presented by Janice Engle.

Status and Conservation of Montana's Lentic Breeding Amphibians and Aquatic Reptiles: pertinent background information, pressing management issues, and ongoing research. Invited presentation to

the Montana Wetlands Council. Montana Department of Environmental Quality, Helena, Montana. September 26, 2001.

Amphibians and Trout: can wilderness areas have both? Invited paper presentation at The Wildlife Society and American Fisheries Society Oregon Chapters Annual Meeting, Portland, Oregon. February 12-13, 2001. Co-authored by D.S. Pilliod, P.S. Corn, B.R. Hossack, W.C. Funk, G. Hokit, B.A. Maxell, J.C. Munger, P. Murphy, and A. Wyrick. Presented by David Pilliod.

Amphibian Declines and Sensitivity Analysis: identifying key life-history stages. Society for Conservation Biology 14th Annual Meeting. University of Montana, Missoula, Montana. June 9-12, 2000. Co-authored with Roman Biek, Chris Funk, and Scott Mills. Presented by Chris Funk.

Ecological Sensitivity Analysis for Columbia Spotted Frogs: the role of information on demographic vital rates in species management. U.S. Fish and Wildlife Service Meeting on the Biology and Conservation of the Spotted Frog. University of Nevada at Reno, Reno, Nevada. March 9, 2000.

Gap Analysis Models: a conservation tool for predicting the distribution of amphibians and reptiles in Montana. Northwest Sectional Meetings of the Wildlife Society. Bozeman, Montana. March 10-12, 1999. Abstract published in the Intermountain Journal of Sciences.

Distribution and Status of Amphibians and Reptiles in Montana. Montana Chapter of the American Fisheries Society Meetings. Bozeman, Montana. February 2-5, 1999. Abstract published in the Intermountain Journal of Sciences.

A Prospective Statistical Power Analysis on the Monitoring of Bull Trout Stocks Using Redd Counts. Montana Chapter of the American Fisheries Society. Helena, Montana. February 3-5, 1998. Abstract published in the Intermountain Journal of Sciences.

Status of Bull Trout in the Rock Creek Watershed. Invited presentation to personnel from the Montana Department of Fish, Wildlife, and Parks, the Lolo and Deerlodge National Forests, local environmental groups, and interested citizens of the Missoula area. December 15, 1996.

Natural History and Management of the Flora and Fauna in Australia and New Zealand. Given to audiences at Colgate University, Hamilton, New York, July 18, 1995 and the University of Puget Sound in Tacoma, Washington, September 14, 1995.

Demographics of Annual Kelps in the Puget Sound. Undergraduate Science Symposium. University of Puget Sound. Tacoma, Washington. May 1994.

UNDERGRADUATE THESES AND OTHER PROJECTS SUPERVISED

Allan Thompson. May 7, 2004. Population characteristics, diet, and body condition of terrestrial (*Thamnophis elegans*) and common (*Thamnophis sirtalis*) gartersnakes in two high elevation watersheds in western Montana. Undergraduate Thesis, Wildlife Biology Program, University of Montana, Missoula, Montana. 35 pp.

Lisa Wilson. December 12, 2003. Breeding ecology of the Columbia Spotted Frog (*Rana luteiventris*) in western Montana. Undergraduate Thesis, Wildlife Biology Program, University of Montana, Missoula, Montana. 24 pp.

Jessica Easley. December 17, 2002. Dietary analysis of Columbia Spotted Frogs (*Rana luteiventris*) in water bodies with and without exotic salmonid fishes. Undergraduate Thesis, Wildlife Biology Program, University of Montana, Missoula, Montana. 24 pp.

GRANTS AND AWARDS

- Co-recipient of the Montana Chapter of The Wildlife Society's Bob Watts Wildlife Communications Award for publication of 2 books, journal articles, professional reports, and workshops on amphibians and reptiles of Montana, March 2005.
- Awarded a $5,000 grant from the Montana Department of Environmental Quality to help review and develop a rapid wetland assessment field data form, June 2004 (Principle Investigator – Bryce Maxell).
- Awarded a $3,000 grant from the Plum Creek Timber Company to conduct baseline inventories for amphibian and aquatic reptile species in west central Montana, April 2004 (Principle Investigator – Lisa Eby, Co-investigator Bryce Maxell).
- Awarded a $9,000 grant by the USGS Biological Resources Division to conduct research on the population dynamics of Columbia spotted frogs and conduct amphibian inventories across western Montana, April 2004 (Principle Investigator – Lisa Eby, Co-investigator Bryce Maxell).
- Awarded a $12,000 grant by the Bureau of Land Management to conduct baseline inventories for amphibian and aquatic reptile species in west central Montana, April 2004 (Principle Investigator – Lisa Eby, Co-investigator Bryce Maxell).
- Awarded a $55,000 State Wildlife Grant by the Montana Department of Fish, Wildlife, and Parks to conduct baseline inventories for amphibian and aquatic reptile species across Montana, April 2004 (Principle Investigator – Lisa Eby, Co-investigator Bryce Maxell).
- Awarded a $70,000 grant by the U.S. Forest Service to conduct baseline inventories for amphibians and aquatic reptiles on the Lolo and Flathead National Forests, April 2004 (Principle Investigator – Lisa Eby, Co-investigator Bryce Maxell).
- Awarded a $7,500 grant by the USGS Biological Resources Division to conduct research on the population dynamics of Columbia spotted frogs, April 2003 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $35,000 grant by the U.S. Forest Service to conduct baseline inventories for amphibians and aquatic reptiles in southwestern Montana, April 2003 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $20,000 grant by the U.S. Forest Service to develop and publish a field guide to the amphibians and reptiles of Montana, April 2003 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $20,000 grant by the Montana Department of Fish, Wildlife, and Parks to conduct baseline inventories for amphibian and aquatic reptile species across western Montana, April 2003 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $10,000 grant by the Bureau of Land Management to conduct baseline inventories for amphibian and aquatic reptile species in southwestern Montana, April 2003 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $2,000 Declining Amphibians Population Task Force Grant to conduct PCR-based baseline surveys for the pathogenic fungus (*Batrachochytrium dendrobatidis*) in western toads (*Bufo boreas*) at breeding sites in western Montana, February 2003.
- Awarded a $2,000 Bertha Morton Scholarship for academic performance, research, and creative activities, April 2002.
- Awarded a $6,000 grant by the Montana Department of Fish, Wildlife, and Parks to conduct baseline inventories for amphibian and aquatic reptile species across western Montana, April 2002 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $10,000 grant by the Bureau of Land Management to conduct baseline inventories for amphibian and aquatic reptile species in southwestern Montana, March 2002 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $7,000 grant by the USGS Biological Resources Division to conduct research on the

population dynamics and behavioral ecology of Columbia spotted frogs, February 2002 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).

- Awarded a $32,500 grant by the United States Forest Service to conduct baseline inventories for amphibians and aquatic reptiles in southwestern Montana, February 2002 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded an $80,700 grant from the EPA through the Montana Department of Environmental Quality Wetland Grants Program to collaboratively develop a comprehensive wetland monitoring and assessment program in Montana with other members of a Wetland Monitoring and Assessment Work Group, February 2002 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $1,575 Clancy Gordon Environmental Scholarship for demonstrated involvement/activism in applying scientific knowledge towards the resolution of environmental problems. April 2001.
- Awarded a $5,000 grant by the Montana Department of Fish, Wildlife, and Parks to conduct amphibian and aquatic reptile surveys in selected watersheds in the South Fork of Flathead River drainage which are the focus of fish restoration efforts, March 2001 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $59,797 grant by the United States Forest Service to conduct baseline inventories for amphibians and aquatic reptiles across western Montana, February 2001 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).

- Awarded a $6,700 grant by the USGS Biological Resources Division to conduct research on the population dynamics and behavioral ecology of Columbia spotted frogs, February 2001 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a total of $30,000 in grants to develop a book on Herpetology in Montana, summarizing all known locality records for and research on the amphibians and reptiles of Montana, February 2001 (Principal Investigator – Bryce A. Maxell, Co-investigators Kirwin Werner, Paul Hendricks, Dennis Flath). Grants received from Region 1 of the U.S. Forest Service, Bureau of Land Management, Montana Department of Fish, Wildlife, and Parks, Bureau of Reclamation, Montana Department of Environmental Quality, Environmental Protection Agency, Montana Coal Council, USGS Biological Resources Division, Society for Study of Amphibians and Reptiles, and Montana-Dakota Utilities).
- Awarded a $2,500 grant by the United States Forest Service to develop management guidelines for amphibians in Montana, April 2000 (Principal Investigator – Bryce Maxell).
- Awarded a $40,000 grant by the United States Forest Service to conduct baseline inventories for amphibians and aquatic reptiles across western Montana, April 2000 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $13,300 Grant by the USGS Biological Resources Division to conduct research on the population dynamics and behavioral ecology of Columbia spotted frogs, April 2000 (Principle Investigator – Andrew Sheldon, Co-investigator Bryce Maxell).
- Awarded a $2,500 Bertha Morton Scholarship for academic excellence and community service, April 2000.
- Awarded a $1,000 University of Montana Environmental Resource Analysis Award to create and evaluate wildlife/habitat models for amphibians in western Montana, April 1997 (Principal Investigator – Bryce Maxell).
- Awarded a $500 University of Montana Erasmus Scholarship for academic excellence and community service, March 1997.
- Awarded a $15,000 Thomas J. Watson Fellowship to study the natural history and management of the terrestrial and marine flora and fauna in Australia and New Zealand, February 1994.
- Awarded a $2,500 Murdock Research Grant in March 1993, and a $250 University of Puget Sound Academic Enrichment Grant in November 1992 to conduct subtidal field research on the demographics of seaweeds in the Puget Sound (Principal Investigator – Bryce Maxell).

OTHER ACTIVITIES AND ACHIEVEMENTS

- Advisor to the Montana Natural Heritage Program and Montana Department of Fish, Wildlife, and Parks for their joint Animal Species of Special Concern list. 2001-2004.
- Advisor to the Region 1 USFS and Montana/Dakotas state BLM office for their Sensitive Species list updates. 2003-2004.
- Contributed photos, drawings, and other information on the impacts of the creation of fish ponds on native amphibians, aquatic reptiles, and macro invertebrates for an information booklet, June 2004. These booklets will be distributed to private landowners and biologists by Montana Watercourse.
- Contributed photos and to the development of species accounts for an educational poster on the salamanders of Montana, January 2003. Thousands of these posters will been given to wildlife managers, school kids, and the general public across Montana.
- Invited speaker for Bitterroot Chapter of the Audubon Society to lecture on amphibian and reptile biology and management issues of concern, April 15, 2002.
- Consultant to Chris Clancy, Grant Grisak, and Jim Olsen at Montana Department of Fish Wildlife and Parks in their development of fish stocking plans in the Bitterroot, Flathead, and Gallatin National Forests, 2001-2004.
- Contributed hundreds of hours to the management of the Point Observation Database at the Montana

Natural Heritage Program, 2001-2003.

- Invited speaker at a Bitterroot chapter meeting of Trout Unlimited to lecture on amphibian biology and management as it relates to fisheries management, March 2001.
- Trained and supervised 8 to 10 individuals on two separate field crews simultaneously conducting inventories of standing water bodies for lentic breeding amphibians and aquatic reptiles across western Montana and intensive mark-recapture studies of Columbia spotted frog (*Rana luteiventris*) populations in three different watersheds in western Montana, 2000-2003.
- Contributed photos and to the development of species accounts for an educational poster on the frogs and toads of Montana, March 2000. Thousands of these posters have been given or sold to wildlife managers, school kids, and the general public across Montana.
- Guest lectures on Montana's herpetofauna and herpetofaunal management issues to Dr. Les Marcum's Wildlife Management Issues (WBIO 270), and Dr. Richard Hutto's Montana Wildlife (BIOL 201) classes at the University of Montana, 1999-2004.
- Instructor for several 1-3 day long field-based courses on the biology and conservation of Montana's amphibians and reptiles to children between the ages of 8 and 14 and their parents as part of the Montana Natural History Center's Summer Science Program, 1999-2002.
- University of Montana student representative to the Society for Conservation Biology and U.S. Fish and Wildlife Service's review of Recovery Plans for Endangered Species, September 1999.
- Maintained cumulative undergraduate GPA of 3.55 while working 16 hours per week and competitively swimming 20 hours per week, 1989-1994.
- All American N.A.I.A. Swimmer in 200 Yard Breaststroke, 1992 and 1993.
- Co-Captain of University of Puget Sound's Varsity Men's Swim Team, 1992-1993.
- Voted Most Inspirational University of Puget Sound Men's Swimmer, 1991-1992.
- N.A.I.A. Districts 1 & 2 Men's Scholar/Athlete, 1993.